

How to Put Together a Vanpool

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Prepared by

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for
Urban Mass Transit Association**

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Purpose of this Document

This manual was developed by the Knoxville Commuter Pool, Transportation Center, University of Tennessee, under contract with the Urban Mass Transportation Administration, and reprinted by the Department of Energy.

The manual is intended to explain the concept of employee-sponsored vanpooling and its benefits to both vanpool drivers and riders, while serving as a practical guide for implementation of such a program.

NOTE: While the material contained in this manual will serve as a base for the formation of vanpools, in some cases, reference to the availability of information from the Knoxville Commuter Pool is not applicable to many areas.

HOW TO PUT TOGETHER A VANPOOL



DECIDING WHETHER TO START A VANPOOL.

To make a decision on starting a vanpool is really asking, "Do I want to organize a number of people to ride together to and from work and, in so doing, provide myself a free ride and make a little extra money for my effort?" To make this decision requires that one calculate the possible savings and "profit," and compare those to the cost and effort involved in operating

a vanpool. This booklet should assist in making this comparison and deciding whether to start your own vanpool. The following pages include the topics:

1. Why Start A Vanpool?
2. Vanpooling Saves You Commuting Costs
3. How To Start And Operate A Vanpool
 - Finding riders is easier than you think
 - Obtaining insurance coverage: check before you buy
 - Selecting and financing the van: the options and costs
 - Getting organized
4. Figuring Your \$\$ Savings and

If you wish to carry just a few passengers and have them help you pay for only *part* of the van, this booklet also should help you. Also, assistance is available from the Knoxville Commuter Pool to provide you with sample forms and materials to help you easily start and operate a vanpool.

“We Drive in a Vanpool Because...”

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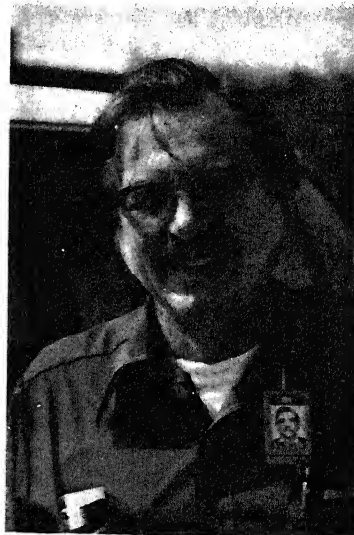
Paul Armstrong

“Once I got started, I soon had a full van and a waiting list of riders.”

“I have use of the van for personal/family use.”

“It’s cheaper.”

“We drive to work free.”



William Pattison



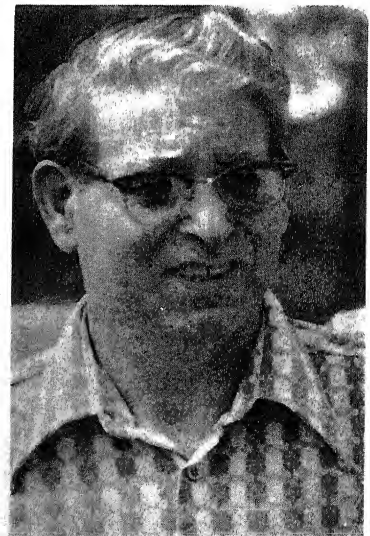
Charlie Hinton

“We have our own commuting business.”

“I saved 22% on my insurance on my family car.”

“Our plant gave us preferred parking. It sure is nice to be close to the entrance when it’s raining.”

“I earn \$75 and up each month plus ride free.”



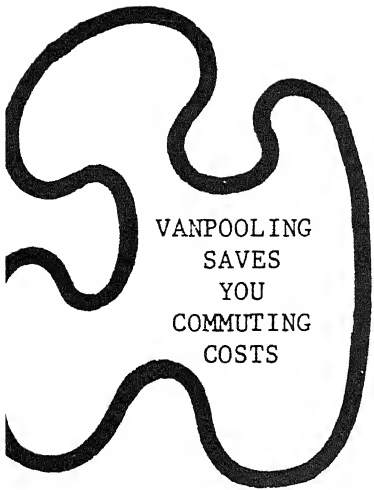
Raymond Buchanan

WHY START A VANPOOL?

Why should you buy a van and start a vanpool?

From our experience with vanpool drivers currently operating in the Knoxville area, the drivers receive several benefits including:

- The driver receives personal enjoyment from using the van evenings, weekends and for recreation.
- Van owners who previously drove a standard size car 20 miles to work each day actually spent about \$1,612.80 per year. By vanpooling, these drivers in effect receive a tax free salary increase of \$134.40 per month by reducing their own commuting expense.
- Vanpool drivers can make a "profit"—over and above their personal commuting savings. You can make extra income and still be doing your riders a favor by saving them money and effort.
- By operating a vanpool, there are a number of tax savings you can deduct from your personal tax bill.
- Most drivers simply enjoy driving a van. For many, it is more satisfying to operate a van than the usual family car.
- Van owners, if they wish, can sell the car they used to commute with and pocket the dollars. The van can be paid for from the rider fares. Or, if your commuter car is worn out, you can save the cost of investing in a new car.
- Drivers who keep the car they previously commuted with may lower their insurance costs by informing their agent that the car is no longer used for commuting.
- Somewhat unexpected, results have shown that the drivers consider the social company of the riders to be another benefit. It is also satisfying to them to do their part in reducing traffic congestion, cutting pollution and conserving energy.



VANPOOLING
SAVES
YOU
COMMUTING
COSTS

Most people underestimate the dollars that they spend on their commuting vehicle. This is natural because the costs, in a sense, are "hidden;" but they are real. Detailed studies show that gasoline and oil represent only one third of the total cost of operating a vehicle. Insurance, tires, maintenance and depreciation represent the

other two thirds. Your car is losing value every day, even if it is idle. Maintenance costs, although perhaps infrequent, add up over the period of a year. The same goes for insurance costs and tire replacement costs. The U.S. Department of Transportation computed cost averages for different size cars in 1975. These are shown in Table 1.

Based on the figures in Table 1, it is possible to estimate the actual cost of operating a commuting automobile as follows:

A EXAMPLE - how to figure your present commuting cost (traveling 30 miles round trip)

1. MULTIPLY

$$\begin{array}{rcl} (.16) \times (30) & = & \$4.80 \\ \text{Cost} & \text{Miles} & \\ \text{per mile} & \text{per day} & \end{array}$$

2. ADD

$$\text{Daily parking cost} + \underline{0}$$

$$3. \text{ TOTAL DAILY COST} = \underline{\$4.80}$$

4. MULTIPLY DAILY COST

$$\begin{array}{rcl} \text{By number of working} & & \\ \text{days per month} & \times & \underline{21} \end{array}$$

$$5. \text{ COST PER MONTH TO DRIVE ALONE} = \underline{\$100.80}$$

TABLE 1

PER MILE COST OF VARIOUS SIZE CARS

Adapted from U.S. Department of Transportation - Federal Highway Administration Statistics

Car Size	Vehicle Cost Depreciated	Maintenance Accessories, Parts & Tires	Gas & Oil (Excluding Taxes)	Insurance	State and Federal Taxes	Total Cost (Per Mile)
Standard	4.5¢	3.7¢	5.5¢	1.7¢	1.6¢	= 17¢ (\$.17)
Intermediate	4.2¢	3.4¢	5.3¢	1.6¢	1.5¢	= 16¢ (\$.16)
Compact	2.9¢	2.7¢	4.7¢	1.5¢	1.2¢	= 13¢ (\$.13)
Subcompact	2.3¢	2.5¢	3.8¢	1.5¢	0.9¢	= 11¢ (.11)

Now find your own cost per mile using Table 1 and figure your present commuting cost.

1. MULTIPLY

$$\begin{array}{ccc} (&) & \times (&) = \$ \underline{\hspace{2cm}} \\ \text{Cost} & & \text{Miles} & \\ \text{per mile} & & \text{per day} & \end{array}$$

2. ADD

$$\text{Daily parking cost} \quad + \quad \$ \underline{\hspace{2cm}}$$

$$3. \text{ TOTAL DAILY COST} \quad = \quad \$ \underline{\hspace{2cm}}$$

4. MULTIPLY DAILY COST

$$\begin{array}{ccc} \text{By number of working} & & \\ \text{days per month} & \times & \underline{\hspace{2cm}} \end{array}$$

5. COST PER MONTH TO

$$\text{DRIVE ALONE} \quad = \quad \$ \underline{\hspace{2cm}}$$

This figure probably seems high, but it is not. If you wish, add up all the above expenses for your vehicle over an average year and calculate an even more accurate figure. But be certain to include *all* the costs for an *average* year. (If you pay \$5,000 for a new car plus \$1,000 in charges to finance it, then sell it after four years with 60,000 miles for \$1,500, just depreciation and finance charges are costing you 7½ cents a mile.)

A vanpool can "spread" the cost across the riders at a level to also pay the cost of your share. In addition, by keeping your van filled close to capacity, you can earn additional income. Table 2 shows how riders as well as driver can save by riding in a vanpool.

In Table 4, it is assumed that a \$7,000.00 van was purchased with no down payment or trade-in and was financed for four years (48 months) at 10.97 percent. The van in this example commutes 40 round-trip miles per day or 10,080 miles per year (40 mi./day x 252 workdays/yr.) and has nine passengers. The passenger fare used in the example was obtained from the Knoxville Commuter Pool's suggested fare structure shown in Table 2.

Price your van, check on financing and insurance costs, and determine the number of round-trip miles your van will commute each day. With these figures and the worksheet you can easily estimate how your vanpool would operate financially.

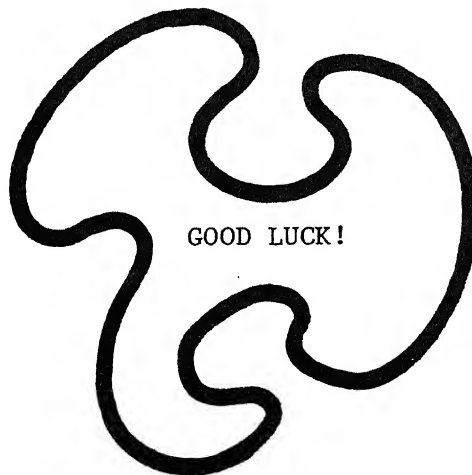


TABLE 4
PRO FORMA INCOME STATEMENT

	<u>Monthly</u>	<u>Annual</u>
REVENUE:		
9 Passengers X \$29.88 (Monthly Fare)	\$ 268.92 X 12 mos.	\$3,227.04
EXPENSES:		
Variable:		
Gas \$ 0.060/mi.		
Maintenance 0.015/mi.		
Tires 0.015/mi.		
Oil 0.003/mi.		
	<u>\$ 0.093/mi.</u>	
X 840 (Monthly Mileage)		
Total Operating Expense	78.12 X 12 mos.	937.44
Fixed:		
Insurance \$ 31.67		
License 1.54		
Interest 36.60		
Depreciation		
\$ 7,000.00 Original Cost		
- 1,500.00 Salvage Value		
	<u>\$ 5,500.00 Depreciable Cost ÷ 48 mos.</u>	114.58
Sales Tax \$320.00 ÷ 48 mos.	<u>6.67</u>	
Total Fixed Expense	<u>191.06</u> X 12 mos.	<u>2,292.72</u>
Gross Income	0.26	3.12
Non-Cash Expense (Depreciation and Interest)	<u>+151.18</u> X 12 mos.	<u>+1,814.16</u>
Cash Flow	151.44	1,817.28
Required Payment for Loan	<u>-189.10</u> X 12 mos.	<u>- 2,269.20</u>
Net Cash Flow	(37.66) X 12 mos.	(451.92)

TABLE 4 (continued)
PRO FORMA INCOME STATEMENT

	<u>Monthly</u>	<u>Annual</u>
REVENUE:		
____ Passengers X ____ (Monthly Fare)	____ X 12 mos.	____
EXPENSES:		
Variable:		
Gas \$ 0.060/mi.		
Maintenance 0.015/mi.		
Tires 0.015/mi.		
Oil <u>0.003/mi.</u>		
\$ 0.093/mi.		
X ____ (Monthly Mileage)		
Total Operating Expense	____ X 12 mos.	____
Fixed:		
Insurance		
License <u>1.54</u>		
Interest		
Depreciation		
\$ ____ Original Cost		
- ____ Salvage Value		
____ Depreciable Cost ÷ ____ mos.		
Sales Tax (\$ ____ ÷ ____ mos.)		
Total Fixed Expense	____ X 12 mos.	____
Gross Income	____	____
Non-Cash Expense (Depreciation and Interest) +	____ X 12 mos. +	____
Cash Flow	____	____
Required Payment for Loan	- ____ X 12 mos. -	____
Net Cash Flow	____ X 12 mos.	____

TABLE 4 (continued)
MONTHLY CASH FLOW STATEMENT

	<u>Example</u>	<u>Your Vanpool</u>
Gross Income	\$ 0.26	_____
Depreciation and Interest Reserve	<u>+151.18</u>	+ _____
Cash Generated	151.44	_____
Loan Payment on Van	<u>-189.10</u>	- _____
Net Cash Flow	(\$37.66)	\$ _____

In our example:

With No down payment and a monthly payment of \$38.18, the driver receives:

- (a) a free ride to work,
- (b) a new van available for personal use,
- (c) a clear title to the van at the end of the four year period.

In exchange for the privilege of participating in the nonprofit Knoxville Commuter Pool, which is sponsored by the City of Knoxville, the Rider whose signature appears below enters into this agreement with the driver/coordinator whose signature appears below. The rider understands that the primary purpose of this program is so that the rider can benefit by obtaining inexpensive and efficient commuter transportation.

I. The Rider Agrees:

1. to be ready to leave at his designated pick-up time;
2. to pay the driver on a regular basis the monthly fare as arranged between the rider and the driver (based upon fares computed by the management of the Knoxville Commuter Pool);
3. to notify the driver and the management of the Knoxville Commuter Pool of any complaints or suggestions the rider might have;
4. to notify the driver as promptly as possible (the night before if possible) if the rider does not need a ride.

II. The Driver Agrees:

1. to provide efficient transportation on a daily basis;
2. to be on time in picking up the rider and to wait three minutes if the rider is not ready;
3. to advise the rider five days in advance of payment the amount of fare that the rider owes for the next month of transportation;
4. to promptly notify the rider in case of van failure, and in the event that transportation is not provided, to refund the excess of any fares collected.

III. Termination of Agreement:

1. the rider can terminate this agreement by giving the driver 30 days written notice or by securing a substitute rider that is acceptable to the driver (in which case termination will be effective when a new rider agreement is signed by the substitute rider).
2. the driver can terminate this agreement upon 30 days written notice to the rider, or immediately if driver has "cause" for termination of the agreement. (The management of the Knoxville Commuter Pool will determine whether there has been sufficient cause and the driver will refund any excess of fares collected from the rider.)

IV. Dispute Settlement:

In the event of any dispute concerning this agreement as to responsibilities and duties of the respective parties or as to the meaning or interpretation of this agreement, the rider and the driver agree to appeal to the management of the Knoxville Commuter Pool for a decision. The driver and the rider agree to be bound by the decision reached by the management of the Knoxville Commuter Pool.

We have read and understand this Rider's Agreement on _____ day of _____, 1976.

Rider: _____
 Name Address Zip Code Telephone

Driver/Coordinator: _____
 Name Telephone

SUGGESTED MAINTENANCE SCHEDULE

	Estimated Cost	Total
5,000 miles		
Oil and filter change	\$ 16.00	
Lube	4.00	\$ 20.00
10,000 miles		
Oil and filter change and lube	20.00	
Alignment, balance, and rotation	25.00	45.00
15,000 miles		
Tune-up (parts and labor)	30.00	
Oil and filter change and lube	20.00	50.00
20,000 miles		
3 Tires 10 ply. 3 @ \$75.00	225.00	
Alignment, and balance	20.00	
Oil and filter change and lube	20.00	265.00
25,000 miles		
Oil and filter change and lube	20.00	20.00
30,000 miles		
Brakes (complete)	120.00	
Transmission		
drain, refill, new filters	45.00	
Tune-up (parts and labor)	30.00	
Air filter	5.00	
Alignment, rotation, and balance	25.00	
Oil and filter change and lube	20.00	245.00
35,000 miles		
Oil and filter change and lube	20.00	20.00
40,000 miles		
4 tires 10 ply. 4 @ \$75.00	300.00	
Alignment and balance	20.00	
Oil and filter change and lube	20.00	340.00

	Estimated Cost	Total
45,000 miles		
Tune-up (parts and labor)	\$ 30.00	
Oil and filter change and lube	20.00	\$ 50.00
50,000 miles		
Cooling system		
drain, flush, and refill	25.00	
Rebuild carburetor and adjust	35.00	
Alignment, rotation and balance	25.00	
Oil and filter change and lube	20.00	105.00
55,000 miles		
Oil and filter change and lube	20.00	20.00
60,000 miles		
Brakes (complete)	120.00	
Transmission		
drain, refill, and new filters	45.00	
Tune-up	30.00	
Oil and filter change and lube	20.00	
4 Tires	300.00	
Alignment and balance	20.00	
Air filter	5.00	540.00
65,000 miles		
Oil and filter change and lube	20.00	20.00
70,000 miles		
Oil and filter change and lube	20.00	
Alignment, rotation, and balance	25.00	45.00
75,000 miles		
Tune-up	30.00	
Oil and filter change and lube	20.00	50.00
80,000 miles		
4 Tires	300.00	
Alignment and balance	20.00	
Oil and filter change and lube	20.00	340.00
85,000 miles		
Oil and filter change and lube	20.00	20.00

	Estimated Cost	Total
90,000 miles		
Brakes (complete)	\$ 120.00	
Transmission		
drain, refill, and new filters	45.00	
Oil and filter change and lube	20.00	
Alignment, rotation and balance	25.00	
Tune-up	30.00	
Air filter	5.00	\$ 245.00
95,000 miles		
Oil and filter change and lube	20.00	20.00
100,000 miles		
Cooling system		
drain, flush and refill	25.00	
Rebuild carburetor and adjust	35.00	
4 Tires	300.00	
Alignment and balance	20.00	
Oil and filter change and lube	20.00	400.00
105,000 miles		
Tune-up	30.00	
Oil and filter change and lube	20.00	50.00
110,000 miles		
Oil and filter change and lube	20.00	
Alignment, rotation and balance	25.00	45.00
115,000 miles		
Oil and filter change and lube	20.00	20.00
120,000 miles		
Brakes (complete)	120.00	
4 Tires	300.00	
Alignment and balance	20.00	
Transmission		
drain, refill and new filters	45.00	
Air filter	5.00	
Oil and filter change and lube	20.00	
Tune-up	30.00	540.00

